Introduction to SAEs

Submitted by Coleman Sappington and used in cooperation with the University of Illinois at Urbana-Champaign.

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Introduction to SAE
Wanted: Landscape Maintenance worker, Operate a lawn mower and power blower. Need a person who can work with out supervision. Experience required. Call 515-7743.
Vet Assistant needed. Mayflower Animal Hospital needs an experienced individual to work 20 hours a week. Duties including bathing animals, grooming and feeding of animals. Apply in person at 316 Walnut Street.
Read this carefully!

Wanted: Dependable person to handle over the counter sales in a busy garden center. Pay is $7.50 an hour. Neat appearance important along with the ability to work with people. Experience in working with plants a must. Call 515-2396 for an interview.
What was the same in all 3 ads?

• Each advertisement wanted the person to be experienced
  – People who have experience have the edge in landing a job. But:
    • How do you get experience without first having a job?
    • How do you get a job without first having experience?
Gaining Experience!!

• Question:
  – How can you gain experience to get a job (or prepare for college)?

• Answer:
  – Supervised Agricultural Experience (SAE)
What is SAE?

• Supervised Agricultural Experience (SAE) Programs

• Planned practical activities conducted outside of class time in which students develop and apply agricultural knowledge and skills.
How Does a SAE Help Me?

- Develop skills to get a job
- Opportunity to make money
- Development management skills
- Learn record keeping skills
- Improves analytical and decision making skills
- Teaches responsibility
- Provides the opportunity to explore possible careers
- Develop skills that can be used in starting your own business
How Does a SAE Help Me...?

• Develops knowledge and skills that could be helpful in college, as a hobby or for recreation.

• Provides the opportunity to win awards:
  – FFA proficiency awards are based on the SAE program.
  – In addition to winning awards, money can be won at regional, state and national levels.
How Does a SAE Help Me...?

• FFA degrees are partially based on the SAE.
  – You must have a SAE program to advance.
• In order to be a state or national officer, you first must have an advanced FFA degree which is partially based on SAE.
• Could help the grade in Agriculture class.
Types of SAE

- Entrepreneurship
- Placement
- Research
  - Experimental
  - Non-Experimental
- Exploratory
- Improvement
- Supplemental
Entrepreneurship

• The student plans, implements, operates and assumes financial risks in a farming activity or agricultural business.
  – the student owns the materials and other required inputs
  – Student keeps financial records to determine profitability
Entrepreneurship examples:

• Growing an acre of corn
• Operating a Christmas tree farm
• Raising a litter of pigs
• Running a pay-to-fish operation
• Growing bedding plants in the school greenhouse
• Owning and operating a lawn care service
• A group of students growing a crop of poinsettias
Placement

• Involves the placement of students on farms and ranches, in agricultural businesses, in school laboratories or in community facilities to provide a "learning by doing" environment.
  – This is done outside of normal classroom hours
  – May be paid or non-paid
Placement Examples

• Placement in a florist shop
• Working after school at a farm supply store.
• Working on Saturdays at a riding stable
• Working in the school greenhouse after school and on weekends and holidays
• Placement on a general livestock farm
Research

• Activity where the student plans and conducts a major agricultural experiment using the scientific process. The purpose of the experiment is to provide students "hands-on" experience in:
  – 1. Verifying, learning or demonstrating scientific principles in agriculture.
  – 2. Discovering new knowledge.
  – 3. Using the scientific process.
Research Examples

• Comparing the effect of various planting media on plant growth
• Determining the impact of different levels of protein on fish growth
• Comparing three rooting hormones on root development
• Determining if phases of the moon have an effect on plant growth
• Analyzing the effectiveness of different display methods on plant sales in a garden center
• Demonstrating the impact of different levels of soil acidity on plant growth
There are two major types of Research Projects
  - Experimental and Non-Experimental

The previous slides described experimental. The two slides that follow describe non-experimental research.
Non-Experimental Research

• Students choose an agricultural problem that is not amenable to experimentation and design a plan to investigate and analyze the problem.
  – The students gather and evaluate data from a variety of sources and then produce some type of finished product.
Non-Experimental Examples:

- A marketing plan for an agricultural commodity
- A series of newspaper articles about the environment
- A land use plan for a farm
- A landscape design for a community facility
- An advertising campaign for an agribusiness
• Designed primarily to help students become literate in agriculture and/or become aware of possible careers in agriculture.

  – Appropriate for beginning agricultural students but is not restricted to beginning students.
Exploratory Examples:

• Observing and/or assisting a florist
• Growing plants in a milk jug "greenhouse"
• Assisting on a horse farm for a day
• Interviewing an agricultural loan officer in a bank
• Preparing a scrapbook on the work of a veterinarian
• Attending an agricultural career day
Improvement (minor component)

- Include a series of learning activities that improves the value or appearance of the place of employment, home, school or community; the efficiency of an enterprise or business, or the living conditions of the family.
  - involves a series of steps and generally requires a number of days for completion.
Improvement Examples:

• Landscaping the home
• Building a fence
• Remodeling and painting a room
• Overhauling a piece of equipment
• Building or reorganizing a farm shop
• Renovating and restocking a pond
• Computerizing the records of an agricultural business
The student performs one specific agricultural skill outside of normal class time.

- The skill is not related to the major SAE but is normally taught in an ag program, involves experiential learning and contributes to the development of ag skills and knowledge on the part of the student.
- The activity is accomplished in less than a day and does not require a series of steps.
Supplementary Examples:

• Pruning a fruit tree
• Changing oil in a sod cutter
• Balling & burlaping a tree
• Helping a neighbor castrate pigs
• Cutting firewood with a chain saw
• Staking tomatoes
SAE and the Full Plate

When thinking about the different components of a SAE program, it might help to think of a meal. No one likes an empty plate!
If we add a steak to the plate, this is similar to having an **Entrepreneurship** SAE. For decades, Entrepreneurship has been the foundation of SAE. But a steak by itself doesn’t make a balanced meal!
The passage of the Vocational Education Act of 1963 caused more interest in off-farm agriculture. This resulted in adding Placement as a type of SAE. We can think of the potato as Placement on our SAE plate.
With the increased emphasis on science in agriculture, a need arose in the 1990s for a new type of SAE activity - **Research**. The green beans represent this addition to our SAE plate.
SAE and the Full Plate

We now have a full plate. However, our meal would be improved by the addition of several additional items. These additional items help round out our SAE plate. We call them minor SAE components.
The addition of a soup or salad helps start a meal. **Exploratory** activities are designed to help students start their SAE programs.
A beverage would help compliment the meal. Supplementary SAE activities help complement the SAE program.
Adding a dessert rounds our our meal. **Improvement** activities help round out the SAE plate.
SAE and the Full Plate

While a SAE program can contain just one or two different types of activities, the goal should be to have a full plate of different activities. This maximizes learning.
INTRODUCTION TO SAE
Outline

What was the same in all 3 ads?
• Each advertisement wanted the person to be _______________
  – People who have _______________ have the edge in landing a job. But:
• How do you get _______________ without first having a _______________?
• How do you get a _______________ without first having _______________?

Gaining Experience!!
• Question:
  – How can you gain _______________ to get a job (or prepare for college)?
• Answer:
  _______________ _______________ _______________

What is SAE?
• Planned _______________ activities conducted outside of _______________ time in which
  students develop and apply agricultural _______________ and _______________.

How Does a SAE Help Me?
• Develop _______________ to get a _______________
• Opportunity to make _______________
• Development _______________ skills
• Learn _______________ _______________ skills
• Improves _______________ and _______________ making skills
• Teaches _______________
• Provides the opportunity to explore possible _______________
• Develop skills that can be used in starting you own _______________
• Develops knowledge and skills that could be helpful in _______________, as a hobby or for recreation.
• Provides the opportunity to win _______________:
  – FFA _______________ awards are based on the SAE program.
  – In addition to winning awards, _______________ can be won at regional, state and national levels
• FFA _______________ are partially based on the SAE.
  – You must have a _______________ program to _______________.
• In order to be a state or national _______________, you first must have an advanced FFA degree which is partially based on SAE.
• Could help the _______________ in Agriculture class.

Types of SAE
• _______________
• _______________
• Research
  – _______________
  – _______________
• _______________
• _______________
• _______________

Entrepreneurship
• The student _______________, implements, operates and assumes _______________ risks in a farming activity or agricultural business.
  – the student _______________ the materials and other required inputs
  – Student keeps _______________ records to determine _______________

Entrepreneurship examples:
• Growing an acre of _______________
• Operating a _______________ tree farm
• Raising a litter of _______________
• Running a _______________ operation
• Growing bedding _______________ in the school greenhouse
• Owning and operating a _______________ care service
• A group of students growing a crop of _______________

Placement
• Involves the placement of students on _______________ and ranches, in agricultural _______________, in school laboratories or in community facilities to provide a "_____________ by _______________ " environment.
  – This is done _______________ of normal classroom hours
  – May be paid or _______________
Placement Examples
• Placement in a _______________ shop
• Working after school at a _______________ supply store.
• Working on Saturdays at a _______________ stable
• Working in the school _______________ after school and on weekends and holidays
• Placement on a general _______________ farm

Research
• Activity where the student _______________ and _______________ a major agricultural experiment using the _______________ process. The purpose of the experiment is to provide students "hands-on" experience in:
  – 1. Verifying, learning or demonstrating scientific _______________ in agriculture.
  – 2. Discovering new _______________.
  – 3. Using the _______________ process.

Research Examples
• Comparing the effect of various _______________ media on plant growth
• Determining the impact of different levels of _______________ on fish growth
• Comparing three rooting _______________ on root development
• Determining if phases of the _______________ have an effect on plant growth
• Analyzing the effectiveness of different _______________ methods on plant sales in a garden center
• Demonstrating the impact of different levels of soil _______________ on plant growth

Research...
• There are two major types of Research Projects
  – _______________ and Non-Experimental

Non-Experimental Research
• Students choose an agricultural problem that is not amenable to _______________ and design a plan to investigate and analyze the problem.
  – The students gather and evaluate _______________ from a variety of sources and then produce some type of _______________ product.
Non-Experimental Examples:
• A _____________ plan for an agricultural commodity
• A series of newspaper _____________ about the environment
• A land _____________ plan for a farm
• A landscape _____________ for a community facility
• An advertising _____________ for an agribusiness

Exploratory
• Designed primarily to help students become _____________ in agriculture and/or become
  aware of possible _____________ in agriculture.
  –Appropriate for _____________ agricultural students but is not _____________ to
    beginning students.

Exploratory Examples:
• Observing and/or _____________ a florist
• Growing _____________ in a milk jug "greenhouse"
• Assisting on a horse farm for a _____________
  _____________ an agricultural loan officer in a bank
• Preparing a _____________ on the work of a veterinarian
• Attending an agricultural _____________ day

Improvement (minor component)
• Include a _____________ of learning activities that improves the _____________ or
  appearance of the place of _____________, home, school or community; the
  _____________ of an enterprise or business, or the _____________ conditions of the
  family.
  –involves a _____________ of _____________ and generally requires a
    _____________ of days for completion.

Improvement Examples:
• _____________ the home
• Building a _____________
  _____________ and painting a room
• _____________ a piece of equipment
• _____________ or reorganizing a farm shop
• and restocking a pond
• the records of an agricultural business

Supplementary (Minor)
• The student performs one agricultural outside of normal class time.
  – The skill is related to the major SAE but is normally taught in an ag program, involves learning and contributes to the development of ag skills and on the part of the student.
  – The activity is accomplished in than a and does not require a series of steps.

Supplementary Examples:
• a fruit tree
• oil in a sod cutter
• & burlaping a tree
• Helping a neighbor pigs
• Cutting with a chain saw
• tomatoes